

Functional Safety Impact due SWEET400 integration

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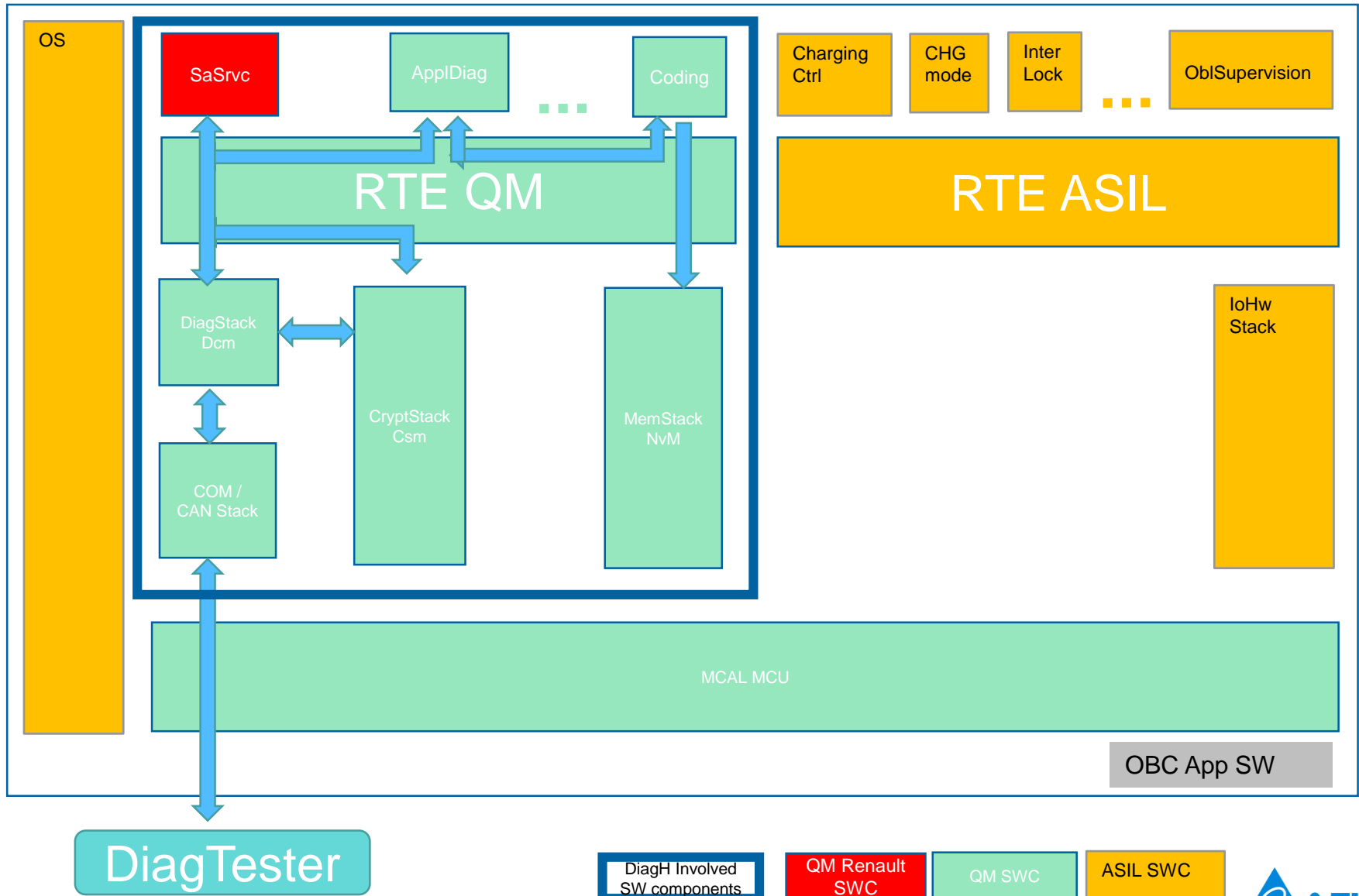


Safety Impact due SWEET400 integration on AC01 Software Architecture and freedom of interference

- The AC01 OBC Software architecture ensure the freedom of interference in respect to memory, communication and runtime through following features:
 - Freedom of interference in respect to memory through usage of MPU memory protection and memory partitioning in ASIL and QM software parts
 - Freedom of interference in respect to communication: usage of CAN End to End protection. Ensured through Clock and CRC for relevant CAN frames
 - Freedom of interference in respect to runtime: WatchDog checkpoint supervision for relevant cyclic runnables in the safety paths
- The Integration of SWEET400 DiagHardening requirements was affecting only the QM parts of the software architectures. No changes were conducted to the ASIL parts of the software. → See next slide
- Hence there is no impact of DiagHardning integration on the existing functional safety goals

Safety Impact due SWEET400 integration on AC01

Software Architecture and freedom of interference



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